**“Association of BMI and Hand grip strength in school children in rural area of Maharashtra in India.”**

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**Abstract:**

**Introduction:** School is plays crucial role in physical fitness and health promotion in children. In developing countries like India, under nutrition is common in school children. This condition is more prominent in rural area of India, due to lack of education, health facilities and poverty. The present study was planned to find out correlation of BMI and Hand Grip Strength in school children around rural area of Loni (Bk); and to determine the gender differences in the same.

**Methodology:** A cross-sectional study carried out on 388 school children of age group between 5 to 15 years were examined, out of which 178 were male and 200 were female. Seven groups according to age were created viz. <6, <7, <8, <9, <10, <11, <14, <15 years. Height, weight and hand grip strength were measured with S.I. measuring tape, Bathroom scale and Baseline hand held dynamometer respectively. The correlation between age, height, weight, BMI and hand grip strength was analyzed by Pearson’s correlation test. The differences between variables amongst both gender was analyzed by student t test.

**Conclusion:** The results of present study shown significant difference in BMI and Hand Grip Strength of Boys and Girls. Though this is an interim study showing correlation between BMI & handgrip strength showing under nutrition among school going children, will be helpful for other researchers in future.

**Keywords:** School children, BMI, hand grip strength, under nutrition.

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